

FIGURE 1

MFRLRSWASSTTGSRYGSAFCGSPTLAWCVCPVCYGESRILRVKVVSG  
IDLAKKDI FGASDPYVKLSLYVADENRELALVQTKTIKKTLPKWNEEF  
YFRVNPSNHRLLEFVFDENRLTRDDFLGQVDVPLSHLPTEDPTMERPYT  
FKDFLLRPRSHKSRVKGFLRLKMAYMPKNGGQDEENSQDRDDMEHGWEV  
VDSNDSASQHQEELPPPLPPGWEEKVDNLGRITYYVNHNNRRTTQWHRPS  
LMDVSSSEDNNIRQINQEAHRRFRSRRHISEDLEPEPSEGGDVPEPWE  
\*  
TISEEVNIAGDSLGVVLPPPPASPGSRTSPQELSEELSRRLQITPDSNG  
EQFSSLIQREPSSRLRSCSVTDAVAEQGHLPPPSVAYVHTTGLPSGWE  
ERKDAKGRITYYVNHNNRRTTTWTRPIMQLAEDGASGSATNSNNHLIEPQI  
RRPRSLSSPTVTLXAPLEGAKDSPVRRVAVKDTLSNPQSPQSPYNPKP  
QHKVTQSFLPPGWEMRIAPNGRPFFIDHNTKTTTWEDPRLKFPVHMRSK  
TSLNPNDLGLPLPPGWEERIHLDGRTFYIDHNSKITQWEDPRLQNPAITG  
PAVPYSREFKQKYDYFRKKLKKPADIPNRFEMKLHRNNIFEESYRRIMS  
VKRPDVLKARLWIEFESEKGLDYGGVAREWFLLSKEMFNPPYYGLFEYS  
ATDNYTLQINPNSGLCNEDHLSYFTFIGRVAGLAVFHGKLLDGFFIRPF  
YKMLLGKQITLNDMESVDSEYYNSLKWILENDPTELDLMFCIDEENFGQ  
TYQVDLKPNGSEIMVTNENKREYIDLVIQWRFVNRVQKQMNAFLEGFTE  
LLPIDLIKIFDENELELLMCGLGDVDVNDWRQHSIYKNGYCPNHPVIOW  
FWKAVLLMDAEKRIRLLQFVTGTSRVPNGFAELYGSNGPOLFTIEOWG  
SPEKLPRAHTCFNRLDLPPYETFEDLREKLMAVENAOGFEGVD.

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FIGURE 2

1 S R F S S S S S T V A C P G R G R A R P V C W K R S E M A - - T C A V E V F G L P46934  
1 - M F R L R S W A S S T T G S R Y G S A F C - G S P T L A W C V C V P V C Y G - ZGGBP-1

39 L E D E E N S R I V R V R V I A G I G L A K K D I L G A S D F Y V R V T L Y D P P46934  
38 - - - - - E S R I L R V K V V S G I D L A K K D I F G A S D F Y V L S L Y V A ZGGBP-1

79 M N G V - L T S V Q T K T I K K S L N P K W N E E I L F R V H P Q O H R L L F E P46934  
73 D E N R E L A L V Q T K T I K K T L N P K W N E E F Y F R V N P S N H R L L F E ZGGBP-1

118 V F D E N R L T R D D F L G Q V D V P L Y P L P T E N F R L E R P Y T F K D P V P46934  
113 V F D E N R L T R D D F L G Q V D V P L S H L P T E D P T M E R P Y T F K D P L ZGGBP-1

158 L H P R S H K S R V K G Y L R L K M T Y L P K T S G S E D D N A E O A E E L E P P46934  
153 L R P R S H K S R V K G F L R L K M A Y H P K N G G Q D E E N S D Q R D D M E N ZGGBP-1

198 G W V V L D Q P D A A C H L Q Q O Q E P S P L P P G W E E R Q G I L G R T Y Y V P46934  
193 G W E V V D S N D S A S O H O E E L P P P P L P P G W E E K V D M L G R T Y Y V ZGGBP-1

238 N H E S R R T Q W K R P T P O D N L T D A E N G N I O L O - - - A O R A F T T R P46934  
233 N H N N R T T O W H R P S L M D V S S E S D N N I R O I N O E A A H R R F R S R ZGGBP-1

275 R O I S E - - E T E S V D N O E S S E N W E I I R E D E A T H Y S S O A F P S P P46934  
273 R H I S E D L E P E P S E G C D V P E P W E T I S E E V N I A G D S L G V V L P ZGGBP-1

313 P P S S N L D V - - - P T H L A E E L N A R L T I F G N S A V S O P A S S S N H P46934  
313 P P P A S P G S R T S P O E L S E E L S R R L Q I T P D S N G E Q F S S L I Q R ZGGBP-1

350 S S R - - - R G S L Q A Y T F E Q P T L P - - - - V L L P T S S G L P P G W E P46934  
353 E P S S R L R S C S V T D A V A E O G H L P P P S V A Y V H T T P G L T S C W E ZGGBP-1

383 E K O D E R G R S Y Y V D H N S R T T T W T K P T V Q - - - - - A T V E P46934  
393 E R K D A K G R T Y Y V N H N N R T T T W T R P I M Q L A E D G A S G S A T N S ZGGBP-1

414 T S Q L T S S Q S S - - - - - - - - - A G P Q S Q A S T S D - - - - - P46934  
433 N N H L I E P Q I R R P R S L S S P T V T L X A P L E C A K D S P V R R A V K D ZGGBP-1

435 - - - S G C Q V T O P S - - - - - - - E I E O G F L P K G W E V R H A P N G R P46934  
473 T L S N P Q S P O P S P Y N S P K P Q H K V T O S F L P P G W E M R I A P N G R ZGGBP-1

464 P F F I D H N T K T T T W E D P R L K I P A H L R G K T S L D T S N D L G P L P P46934  
513 P F F I D H N T K T T T W E D P R L K I P V H M R S K T S L N - P N D L G P L P ZGGBP-1

504 P G W E E R T H T D G R I P Y I N H N I K R T O W E D P R L E N V A I T G P A V P46934  
552 P G W E E R I H L D G R T F Y I D H N S K I T O W E D P R L Q N P A I T G P A V ZGGBP-1

544 P Y S R D Y K R X Y E F F R R K L K K O N D I P N K F E M F L R R A T V L E D S P46934  
592 P Y S R E F K O X Y D Y F R K K L K K P A D I P N R P E M F L K R N N I F E E S ZGGBP-1

584 Y R R I M G V K R A D P L K A R L W I E F D G E K G L D Y G G V A R E W F F L I P46934  
632 Y R R I M S V K R P D V L K A R L W I E P E S E K G L D Y G G V A R E W F F L L ZGGBP-1

624 S K E M F N P Y Y G L P E Y S A T D N Y T L Q I N P N S G L C N E D H L S Y F K P46934  
672 S K E M F N P Y Y G L F E Y S A T D N Y T L Q I N P N S G L C N E D H L S Y F T ZGGBP-1

664 F I G R V A G M A V Y H G K L L D G F F I R P F Y K M M L H K P I T L H D M E S P46934  
712 F I G R V A G L A V F H G K L L D G F F I R P F Y K M M L G K O I T L N D M E S ZGGBP-1

704 V D S E Y Y N S L P W I L E N D P T E L D L R F I I D E E L F G O T H Q H E L K P46934  
752 V D S E Y Y N S L P W I L E N D P T E L D L M P C I D E E N F G O T Y Q V D L K ZGGBP-1

744 N C C S E I V V T N K N K X E Y I Y L V I O W R F V N R I O K Q M A A F K E G F P46934  
792 P N C S E I M V T N E N K R E Y I D L V I O W R F V N R V O K O M N A F L E G F ZGGBP-1

784 F E L I P O D L I K I F D E N E L E L L M C G L G D V D V N D W R E H T K Y K N P46934  
832 T E L L P I D L I K I F D E N E L E L L M C G L G D V D V N D W R O H S I Y K N ZGGBP-1

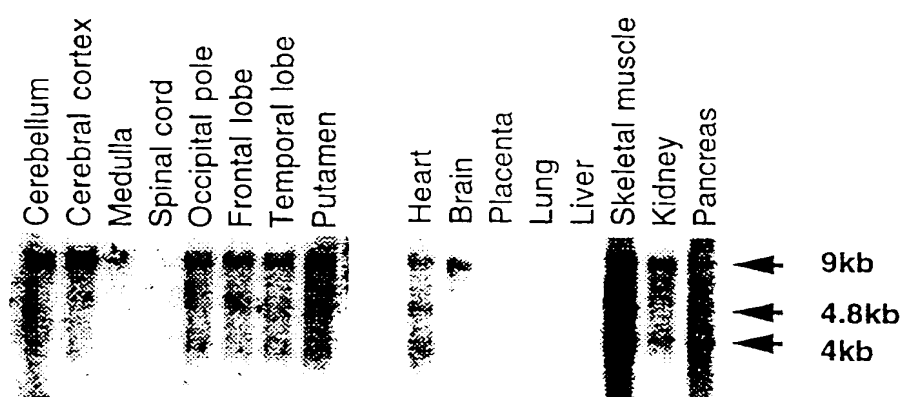
824 G Y S A N H O V I O W F W K A V L M M D S E K R I R L L O F V T G T S R V P M N P46934  
872 G Y C P N H P V I O W F W K A V L L M D A E K R I R L L O F V T G T S R V P M N ZGGBP-1

864 G F A E L Y G S N G P Q S F T V E O W G T P E K L P R A H T C F N R L D L P P Y P46934  
912 G F A E L Y G S N G P O L F T I E O M G S P E K L P R A H T C F N R L D L P P Y ZGGBP-1

904 E S F E E L W S K L O M A I E N T O G F D G V - D P46934  
952 E T F E D L R E K L L M A V E N A O G F E G V D ZGGBP-1

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FIGURE 3



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FIGURE 4

1	-----ACAAATGGGGGCTGCTCCACAGAGAAATG	Mouse ZGGBP-1
1	CAGAGAAAGGTCTTCTGACTATGGGGGTGTGGCCAGAGAAATG	Human ZGGBP-1
25	GTTCCTTCTTACTGTCCAAACAGATGTTTAACTCCCTACTAT	Mouse ZGGBP-1
41	GTTCCTTCTTACTGCTCCAAACAGATGTTTCAACCCCTACTAT	Human ZGGBP-1
65	GGCCTTCTTCTGAGTACTCTGCCCACCCACAACCTACACACTTC	Mouse ZGGBP-1
81	GGCCTTCTTCTGAGTACTCTGCCCACCCACAACCTACACACTTC	Human ZGGBP-1
105	AGATCAAAATCCCAACCTCAGGCTCTCTGTAATCACGATCATT	Mouse ZGGBP-1
121	AGATCAAAATCCCTAAATTCAGGCTCTCTGTAATCACGATCATT	Human ZGGBP-1
145	GTTCCTATTTTCACTCTTCATTTCGAACACTTCTCTGCTGCTG	Mouse ZGGBP-1
161	GTTCCTATTTTCACTCTTCATTTCGAACACTTCTCTGCTGCTG	Human ZGGBP-1
185	GTTCCTATTTTCACTCTTCATTTCGAACACTTCTCTGCTGCTG	Mouse ZGGBP-1
201	GTTCCTATTTTCACTCTTCATTTCGAACACTTCTCTGCTGCTG	Human ZGGBP-1
225	CATTTCACCAAGATGATGCTTGGGAAGCAGATAAACCTGAA	Mouse ZGGBP-1
241	CATTTCACCAAGATGATGCTTGGGAAGCAGATAAACCTGAA	Human ZGGBP-1
265	CCACATGCGAGTCTGCTGGACAGAGCAGATACCAACTCTTTC	Mouse ZGGBP-1
281	CCACATGCGAGTCTGCTGGACAGAGCAGATACCAACTCTTTC	Human ZGGBP-1
305	AAATGGGATCTTAAAGAAACGACCTCCAGGAACTTGACCTCA	Mouse ZGGBP-1
321	AAATGGGATCTTAAAGAAACGACCTCCAGGAACTTGACCTCA	Human ZGGBP-1
345	GTTCCTGCTATAGACGAAGAAACCTTTGGGACAGACATATCA	Mouse ZGGBP-1
361	GTTCCTGCTATAGACGAAGAAACCTTTGGGACAGACATATCA	Human ZGGBP-1
385	AGTCCATCTGGAAGCCCAATGGGTCACAAATAATGCTCACA	Mouse ZGGBP-1
401	AGTCCATCTGGAAGCCCAATGGGTCACAAATAATGCTCACA	Human ZGGBP-1
425	AAATGACAAACAAACGAGAAATACATTTGACTTAGTCATCCAGT	Mouse ZGGBP-1
441	AAATGACAAACAAACGAGAAATACATTTGACTTAGTCATCCAGT	Human ZGGBP-1
465	CCAGATTTTCTCAACAGGCTCCAGAAAGCAGATGAAAGCCTT	Mouse ZGGBP-1
481	CCAGATTTTCTCAACAGGCTCCAGAAAGCAGATGAAAGCCTT	Human ZGGBP-1
505	CTTGGAGGCAATTTACAGAACTTCTTCTCAATCTGACCTTCA	Mouse ZGGBP-1
521	CTTGGAGGCAATTTACAGAACTTCTTCTCAATCTGACCTTCA	Human ZGGBP-1
545	AAATTTTCTGATGAAATGAGCTGGAGTTGCTCATGTCGG	Mouse ZGGBP-1
561	AAATTTTCTGATGAAATGAGCTGGAGTTGCTCATGTCGG	Human ZGGBP-1
585	GGCTTCTGATGATCTGAACTGAACTGAACTGAACTGAACTG	Mouse ZGGBP-1
601	GGCTTCTGATGATCTGAACTGAACTGAACTGAACTGAACTG	Human ZGGBP-1
625	TATTTTACAAAGAACGGCTACTGCCCCAACCCACCTGTCATC	Mouse ZGGBP-1
641	TATTTTACAAAGAACGGCTACTGCCCCAACCCACCTGTCATC	Human ZGGBP-1
665	CAGTGGTTCTGGAAGGCTGCTCTATCTGATGATGCTGAGAA	Mouse ZGGBP-1
681	CAGTGGTTCTGGAAGGCTGCTCTATCTGATGATGCTGAGAA	Human ZGGBP-1
705	AGCCCTATCCGCTTACTGCAAGTTTGTACACAGGACATCCCG	Mouse ZGGBP-1
721	AGCCCTATCCGCTTACTGCAAGTTTGTACACAGGACATCCCG	Human ZGGBP-1
745	AGTACCCTATGAATGATTTGCCGAACCTTTATGGTTCCAAAT	Mouse ZGGBP-1
761	AGTACCCTATGAATGATTTGCCGAACCTTTATGGTTCCAAAT	Human ZGGBP-1
785	GGTCCCTCAGCTGTTTACAAATAGAGCAATGGGGCAATCCCTG	Mouse ZGGBP-1
801	GGTCCCTCAGCTGTTTACAAATAGAGCAATGGGGCAATCCCTG	Human ZGGBP-1
824	AGAAACTTACCTAGAGCTCTACATGCTTTAATCGCCCTTGG	Mouse ZGGBP-1
841	AGAAACTTACCTAGAGCTCTACATGCTTTAATCGCCCTTGG	Human ZGGBP-1

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FIGURE 5

[illegible]

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FIGURE 5 continued

157	GAATWGAATCTCGCCAAAGGACATCTTTGGAGCCAGTGA	Pub-3.seq
481	AGTGA	ZGGBP1.seq
162	TCCGTAATGTGAAACCTTTTCAATTGTACGTAGCGGATGAGAAAT	Pub-3.seq
521	TCCGTAATGTGAAACCTTTTCAATTGTACGTAGCGGATGAGAAAT	ZGGBP1.seq
202	AGAGAACTTGGCTTTGGTCCAGACAAACAAATTAATAAGA	Pub-3.seq
561	AGAGAACTTGGCTTTGGTCCAGACAAACAAATTAATAAGA	ZGGBP1.seq
242	CACCTGAACCCCAAAATGGAAATGGAATTTTATTTTCAAGGGT	Pub-3.seq
601	CACCTGAACCCCAAAATGGAAATGGAATTTTATTTTCAAGGGT	ZGGBP1.seq
282	AAACCCATCTAATCACAGACTCCCTATTTTGAAGTATTTTGAC	Pub-3.seq
641	AAACCCATCTAATCACAGACTCCCTATTTTGAAGTATTTTGAC	ZGGBP1.seq
322	GAAATAGACTGACACGAGACGGCTTCCCTGGGCCAGGTGG	Pub-3.seq
681	GAAATAGACTGACACGAGACGCTTCCCTGGGCCAGGTGG	ZGGBP1.seq
362	ACGTGCCCTTAGTCACTTCCGACAGAGATCCCAACCAT	Pub-3.seq
721	ACGTGCCCTTAGTCACTTCCGACAGAGATCCCAACCAT	ZGGBP1.seq
402	GGAGCGACCCCTATACATTTTAAGGACTTCTCTCCCTCAGACCA	Pub-3.seq
761	GGAGCGACCCCTATACATTTTAAGGACTTCTCTCCCTCAGACCA	ZGGBP1.seq
442	AGAGTCAATAAGTCTCGAGTTAAGGGATTTTGGCGATTGA	Pub-3.seq
801	AGAGTCAATAAGTCTCGAGTTAAGGGATTTTGGCGATTGA	ZGGBP1.seq
482	AAATGGCCCTATATGCCCAAAATAATGGAGGTCAGAGATGAAGA	Pub-3.seq
841	AAATGGCCCTATATGCCCAAAATAATGGAGGTCAGAGATGAAGA	ZGGBP1.seq
522	AAACAGTGACCAAGGGGATGACATGGAGCATGGATGGGAA	Pub-3.seq
881	AAACAGTGACCAAGGGGATGACATGGAGCATGGATGGGAA	ZGGBP1.seq
562	GTTGTTGACTCAAAATGACTCGGCTTCTCAGCACCAAGAGG	Pub-3.seq
921	GTTGTTGACTCAAAATGACTCGGCTTCTCAGCACCAAGAGG	ZGGBP1.seq

FIGURE 5 continued

602	A A C T T C C T C C C T C C T C T G C C T C C C C G G G T G G G A A G A A A A	Pub-3.seq
961	A A C T T C C T C C C T C C T C T G C C T C C C G G T G G G A A G A A A A	ZGGBP1.seq
642	A G T G G A C A A T T A G G C C G A A C T T A C T A T G T C A A C C A C A A C	Pub-3.seq
1001	A G T G G A C A A T T A G G C C G A A C T T A C T A T G T C A A C C A C A A C	ZGGBP1.seq
682	A A C C G G A C C A C T C A G T G G C A C A G A C C A A G C C T G A T G G A C G	Pub-3.seq
1041	A A C C G G A C C A C T C A G T G G C A C A G A C C A A G C C T G A T G G A C G	ZGGBP1.seq
722	T G T C C T C G G A G T C G G A C A A T A A C A T C A G A C A G A T C A A C C A	Pub-3.seq
1081	T G T C C T C G G A G T C G G A C A A T A A C A T C A G A C A G A T C A A C C A	ZGGBP1.seq
762	G G A G G C A G C A C A C C G G C G C T T C G G C T C C C G C A G G C A C A T C	Pub-3.seq
1121	G G A G G C A G C A C A C C G G C G C T T C G G C T C C C G C A G G C A C A T C	ZGGBP1.seq
802	A G C G A A G A C T T G G A G C C C G A G C C C T C G G A G G C G G G A T G	Pub-3.seq
1161	A G C G A A G A C T T G G A G C C C G A G C C C T C G G A G G C G G G A T G	ZGGBP1.seq
842	T C C C C G A G C C T T G G A G A C C A T T T C A G A G G A A G T G A A T A T	Pub-3.seq
1201	T C C C C G A G C C T T G G A G A C C A T T T C A G A G G A A G T G A A T A T	ZGGBP1.seq
882	C G C T G G A G A C T C T C G G T C T G G C T G C C C C C A C C A C C G	Pub-3.seq
1241	C G C T G G A G A C T C T C G G T C T G G C T G C C C C C A C C A C C G	ZGGBP1.seq
922	G T C T C C C C A G G A T C T C G G A C C A G C C C T C A G G A G C T G T C A G	Pub-3.seq
1281	G T C T C C C C A G G A T C T C G G A C C A G C C C T C A G G A G C T G T C A G	ZGGBP1.seq
962	A G G A A C T A A G C A G A A G G C T T C A G A T C A C T C C A G A C T C C A A	Pub-3.seq
1321	A G G A A C T A A G C A G A A G G C T T C A G A T C A C T C C A G A C T C C A A	ZGGBP1.seq
1002	T G G G G A A C A G T T C A G C T C T T T G A T T C A A A G A G A A C C C T C C	Pub-3.seq
1361	T G G G G A A C A G T T C A G C T C T T T G A T T C A A A G A G A A C C C T C C	ZGGBP1.seq
1042	T C A A G G T T G A G G T C A T G C A G T G T C A C C G A C G C A G T T G C A G	Pub-3.seq
1401	T C A A G G T T G A G G T C A T G C A G T G T C A C C G A C G C A G T T G C A G	ZGGBP1.seq
1082	A A C A G G G C C A T C T A C C A C C G C C A T C A G T G G C C T A T G T A C A	Pub-3.seq
1441	A A C A G G G C C A T C T A C C A C C G C C A T C A G T G G C C T A T G T A C A	ZGGBP1.seq

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FIGURE 5 continued

1122	T A C C A C G C C G G G T C T G C C T T C A G G C T G G G A A G A A A A A A	Pub-3.seq
1481	T A C C A C G C C G G G T C T G C C T T C A G G C T G G G A A G A A A A A A	ZGGBP1.seq
1162	G A T G C T A A G G G G C G C A C A T A C T A T G T C A A T C A T A C A A T C	Pub-3.seq
1521	G A T G C T A A G G G G C G C A C A T A C T A T G T C A A T C A T A C A A T C	ZGGBP1.seq
1202	G A A C C A C A A C T T G G A C T C G A C C T A T C A T G C A G C T T G C A G A	Pub-3.seq
1561	G A A C C A C A A C T T G G A C T C G A C C T A T C A T G C A G C T T G C A G A	ZGGBP1.seq
1242	A G A T G G T G C G T C C G G A T C A G C C A C A A C A G T A C A A C C A T	Pub-3.seq
1601	A G A T G G T G C G T C C G G A T C A G C C A C A A C A G T A C A A C C A T	ZGGBP1.seq
1282	C T A A T C G A G C C T C A G A T C C G C C G G C C T C G T A G C C T C A G C T	Pub-3.seq
1641	C T A A T C G A G C C T C A G A T C C G C C G G C C T C G T A G C C T C A G C T	ZGGBP1.seq
1322	C G C C A A C A G T A C T T T A T C T G C C C C G C T G G A G G G T G C C A A	Pub-3.seq
1681	C G C C A A C A G T A C T T T A T Y T G C C C C G C T G G A G G G T G C C A A	ZGGBP1.seq
1362	G G A C T C A C C C G T A C G T C G G G C T G T G A A A G A C A C C C T T T C C	Pub-3.seq
1721	G G A C T C A C C C G T A C G T C G G G C T G T G A A A G A C A C C C T T T C C	ZGGBP1.seq
1402	A A C C C A C A G T C C C C A C A G C C A T C A C C T T A C A A C T C C C C A	Pub-3.seq
1761	A A C C C A C A G T C C C C A C A G C C A T C A C C T T A C A A C T C C C C A	ZGGBP1.seq
1442	A A C C A C A A C A C A A A G T C A C A C A G A G C T T C T T G C C A C C C G G	Pub-3.seq
1801	A A C C A C A A C A C A A A G T C A C A C A G A G C T T C T T G C C A C C C G G	ZGGBP1.seq
1482	C T G G G A A A T G A G G A T A G C G C C A A C G G C C G G C C C T T C T T C	Pub-3.seq
1841	C T G G G A A A T G A G G A T A G C G C C A A C G G C C G G C C C T T C T T C	ZGGBP1.seq
1522	A T T G A T C A T A A C A C A A A A G A C A C A A C C T G G G A A G A T C C A C	Pub-3.seq
1881	A T T G A T C A T A A C A C A A A A G A C A C A A C C T G G G A A G A T C C A C	ZGGBP1.seq



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FIGURE 5 continued

1562	G T T T G A A A T T T C C A G T A C A T A T G C G G T C A A A G A C A T C T T T	Pub-3.seq
1921	G T T T G A A A T T T C C A G T A C A T A T G C G G T C A A A G A C A T C T T T	ZGGBP1.seq
1602	A A A C C C C A A T G A C C T T G G C C C C C T T C C T C C T G G C T G G G A A	Pub-3.seq
1961	A A A C C C C A A T G A C C T T G G C C C C C T T C C T C C T G G C T G G G A A	ZGGBP1.seq
1642	G A A G A A T T C A C T T G G A T G G C C G A A C G T T T T A T A T T G A T C	Pub-3.seq
2001	G A A G A A T T C A C T T G G A T G G C C G A A C G T T T T A T A T T G A T C	ZGGBP1.seq
1682	A T A A T A G C A A A A T T A C T C A G T G G G A A G A C C C A A G A C T G C A	Pub-3.seq
2041	A T A A T A G C A A A A T T A C T C A G T G G G A A G A C C C A A G A C T G C A	ZGGBP1.seq
1722	G A C C C A G C T A T T A C T G G T C C G G C T G T C C C T T A C T C C A G A	Pub-3.seq
2081	G A C C C A G C T A T T A C T G G T C C G G C T G T C C C T T A C T C C A G A	ZGGBP1.seq
1762	G A A T T T A A G C A G A A A T A T G A C T A C T T C A G G A A G A A A T T A A	Pub-3.seq
2121	G A A T T T A A G C A G A A A T A T G A C T A C T T C A G G A A G A A A T T A A	ZGGBP1.seq
1802	A G A A A C C T G C T G A T A T C C C C A A T A G G T T T G A A A T G A A A C T	Pub-3.seq
2161	A G A A A C C T G C T G A T A T C C C C A A T A G G T T T G A A A T G A A A C T	ZGGBP1.seq
1842	T C A C A G A A A T A A C A T A T T T G A A G A G T C C T A T C G G A G A A T T	Pub-3.seq
2201	T C A C A G A A A T A A C A T A T T T G A A G A G T C C T A T C G G A G A A T T	ZGGBP1.seq
1882	A T G T C C G T G A A A A G A C C A G A T G T C C T A A A A G C T A G A C T G T	Pub-3.seq
2241	A T G T C C G T G A A A A G A C C A G A T G T C C T A A A A G C T A G A C T G T	ZGGBP1.seq
1922	G G A T T G A G T T T G A A T C A G A G A A A G G T C T T G A C T A T G G G G G	Pub-3.seq
2281	G G A T T G A G T T T G A A T C A G A G A A A G G T C T T G A C T A T G G G G G	ZGGBP1.seq
1962	T G T G C C C A G A G A A T G G T T C T T C T T A C T G T C C A A A G A G A T G	Pub-3.seq
2321	T G T G C C C A G A G A A T G G T T C T T C T T A C T G T C C A A A G A G A T G	ZGGBP1.seq
2002	T T C A A C C C C T A C T A C G G C C C T C T T T G A G T A C T C T G C C A C G G	Pub-3.seq
2361	T T C A A C C C C T A C T A C G G C C C T C T T T G A G T A C T C T G C C A C G G	ZGGBP1.seq
2042	A C A A C T A C A C C C T T C A G A T C A A C C C T A A T T C A G G C C T C T G	Pub-3.seq
2401	A C A A C T A C A C C C T T C A G A T C A A C C C T A A T T C A G G C C T C T G	ZGGBP1.seq

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FIGURE 5 continued

2082	T A A T G A G G A T C A T T T G T C C T A C T T C A C T T T T A T T G G A A G A	Pub-3.seq
2441	T A A T G A G G A T C A T T T G T C C T A C T T C A C T T T T A T T G G A A G A	ZGGBP1.seq
2122	G T T G C T G G T C T G G C C G T A T T T C A T G G G A A G C T C T T A G A T G	Pub-3.seq
2481	G T T G C T G G T C T G G C C G T A T T T C A T G G G A A G C T C T T A G A T G	ZGGBP1.seq
2162	G T T T C T T C A T T A G A C C A T T T T A C A A G A T G T G T T G G G A A A	Pub-3.seq
2521	G T T T C T T C A T T A G A C C A T T T T A C A A G A T G T G T T G G G A A A	ZGGBP1.seq
2202	G C A G A T A A C C C T G A A T G A C A T G G A A T C T G T G G A T A G T G A A	Pub-3.seq
2561	G C A G A T A A C C C T G A A T G A C A T G G A A T C T G T G G A T A G T G A A	ZGGBP1.seq
2242	T A T T A C A A C T C T T T G A A A T G G A T C C T G G A G A A T G A C C C T A	Pub-3.seq
2601	T A T T A C A A C T C T T T G A A A T G G A T C C T G G A G A A T G A C C C T A	ZGGBP1.seq
2282	C T G A G C T G G A C C T C A T G T T C T G C A T A G A C G A A G A A A C T T	Pub-3.seq
2641	C T G A G C T G G A C C T C A T G T T C T G C A T A G A C G A A G A A A C T T	ZGGBP1.seq
2322	T G G A C A G A C A T A T C A A G T G G A T T T G A A G C C C A A T G G G T C A	Pub-3.seq
2681	T G G A C A G A C A T A T C A A G T G G A T T T G A A G C C C A A T G G G T C A	ZGGBP1.seq
2362	G A A T A A T G G T C A C A A A T G A A A C A A A A G G G A A T A T A T C G	Pub-3.seq
2721	G A A T A A T G G T C A C A A A T G A A A C A A A A G G G A A T A T A T C G	ZGGBP1.seq
2402	A C T T A G T C A T C C A G T G G A G A T T T G T G A A C A G G G T C C A G A A	Pub-3.seq
2761	A C T T A G T C A T C C A G T G G A G A T T T G T G A A C A G G G T C C A G A A	ZGGBP1.seq
2442	G C A G A T G A A C G C C T T C T T G G A G G G A T T C A C A G A A C T A C T T	Pub-3.seq
2801	G C A G A T G A A C G C C T T C T T G G A G G G A T T C A C A G A A C T A C T T	ZGGBP1.seq
2482	C C T A T T G A T T T G A T T A A A A T T T T G A T G A A A A T G A G C T G G	Pub-3.seq
2841	C C T A T T G A T T T G A T T A A A A T T T T G A T G A A A A T G A G C T G G	ZGGBP1.seq

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FIGURE 5 continued

2522	AGTTGCTCATGTGCGGCCCTCGGTGATGTGGATGTGAATGA	Pub-3.seq
2881	AGTTGCTCATGTGCGGCCCTCGGTGATGTGAATGA	ZGGBP1.seq
2562	CTGGAGACAGCATTTCTATTACAAGAACGGCTACTGCCCA	Pub-3.seq
2921	CTGGAGACAGCATTTCTATTACAAGAACGGCTACTGCCCA	ZGGBP1.seq
2602	AACCAACCCCGTCAATTCAGTGGTTCTGGAAAGGCTGTGCTAC	Pub-3.seq
2961	AACCAACCCCGTCAATTCAGTGGTTCTGGAAAGGCTGTGCTAC	ZGGBP1.seq
2642	TCAATGGACGCCGAAAGAGCGTATCCGGTTACTGCAAGTTTGT	Pub-3.seq
3001	TCAATGGACGCCGAAAGAGCGTATCCGGTTACTGCAAGTTTGT	ZGGBP1.seq
2682	CACAGGGACATCGCGAGTACCTATGAATGGATTTGCCGAA	Pub-3.seq
3041	CACAGGGACATCGCGAGTACCTATGAATGGATTTGCCGAA	ZGGBP1.seq
2722	CTTTATGGTTTCCAAATGGTCCCTCAGCTGTTTACAATAGAGC	Pub-3.seq
3081	CTTTATGGTTTCCAAATGGTCCCTCAGCTGTTTACAATAGAGC	ZGGBP1.seq
2762	AATGGGCGAGTCCCTGAGAAACTC	Pub-3.seq
3121	AATGGGCGAGTCCCTGAGAAACTC	ZGGBP1.seq
2802	CTTTAATCGCCCTTGACTTACCTCCATATGAAACCTTTGAA	Pub-3.seq
3161	CTTTAATCGCCCTTGACTTACCTCCATATGAAACCTTTGAA	ZGGBP1.seq
2842	GATTTACGAGAGAAACCTTCTCATGGCCGTGGAAATGCTC	Pub-3.seq
3201	GATTTACGAGAGAAACCTTCTCATGGCCGTGGAAATGCTC	ZGGBP1.seq
2882	AAGGATTTGAAGGGGTGGATTAAGCACCCCTGTGCTCGGG	Pub-3.seq
3241	AAGGATTTGAAGGGGTGGATTAAGCACCCCTGTGCTCGGG	ZGGBP1.seq
2922	GGTGGTTGTTCTTCAAGCAAAGTTCTGCTTGCACTTTTGCA	Pub-3.seq
3281	GGTGGTTGTTCTTCAAGCAAAGTTCTGCTTGCACTTTTGCA	ZGGBP1.seq
2962	TTTGCCCTAACAGACTTTTGCAAGAGGCGATGGCAGAGAGCA	Pub-3.seq
3321	TTTGCCCTAACAGACTTTTGCAAGAGGCGATGGCAGAGAGCA	ZGGBP1.seq
3002	GCTGCAAGGCATGGTCCCTGGAGCCGAGCCCTTCAACCAAGCA	Pub-3.seq
3361	GCTGCAAGGCATGGTCCCTGGAGCCGAGCCCTTCAACCAAGCA	ZGGBP1.seq

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FIGURE 5 continued

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3208 - - - - - Pub-3.seq
3840 A G A C A A G T A C T T T G A G A G A A T T T C C A A T A T A T A T T A G A C ZGGBP1.seq

3208 - - - - - Pub-3.seq
3880 A T A A T G A T A A T T T T T C C A T A C T C A G A A T G A A A A C T G G A ZGGBP1.seq

3214 - - - - - Pub-3.seq
3920 T A T T A C G T T T T T G T T T T G G G T T T T T T G T A C A A A T T T A G ZGGBP1.seq

3214 - - - - - Pub-3.seq
3960 C T A A T A G C T A C A G G C T G A G A G A A T T G T A A C A T A G C A T G A C ZGGBP1.seq

3214 - - - - - Pub-3.seq
4000 A A A T T T G T G T T G A C T T G A A A G G A A T C A C A C C A T T A T T C C ZGGBP1.seq

3214 - - - - - Pub-3.seq
4040 T T A G A A G T A A T T A C A T G T G T T C T A A C A C A T T T G A G A C A G G ZGGBP1.seq

3214 - - - - - Pub-3.seq
4080 G T T G G A C T C C C A T T T C T C A T C C G A G A A A T T A C T T A A C C C T ZGGBP1.seq

3214 - - - - - Pub-3.seq
4120 T C C T G G G C G C T G T A C A G T C A T C T T T A T T C T A T T T C C T C T ZGGBP1.seq

3214 - - - - - Pub-3.seq
4160 T T G C T G T T T G T A G T A G A G A C A T T T G A A T G A A A C T T G G C A ZGGBP1.seq

3214 - - - - - Pub-3.seq
4200 C T G C T T G A T T C A A A A C T G T G G A A A C C A G A T C T G T T T A G T C ZGGBP1.seq

3214 - - - - - Pub-3.seq
4240 T C C T G T T T G T A T G C G T T T G C T A A T G G T A G C T A A A T A A C C A ZGGBP1.seq

3214 - - - - - Pub-3.seq
4280 G T T T T T G T T G T A A A T G C A C C A A T T C T G A A G G C A C T T T A T G ZGGBP1.seq

3214 - - - - - Pub-3.seq
4320 T A C T A C A T G G A G G T C A T A T C T G G T T T T G T T T T T A T T T T T ZGGBP1.seq
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FIGURE 5 continued

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3214 - - - - - TATCATGAACATTAAATGTGATGATGATTTCTTTTCCCTG Pub-3.seq
4360 ZGGBP1.seq
3214 - - - - - CACACATCTTCCGGTGCAATACTATCAATTGTGAATCT Pub-3.seq
4400 ZGGBP1.seq
3214 - - - - - GGCTGCTGGTGTTATAAACCCTGGATGTAAAGCTGAGCCT Pub-3.seq
4440 ZGGBP1.seq
3214 - - - - - ACAGACCCTGTCCTCACCAACTGTTTGTGATTTCTACTCA Pub-3.seq
4480 ZGGBP1.seq
3214 - - - - - ACTACAAAGATTATTATAATGTACTCTTAATCTAACTGAG Pub-3.seq
4520 ZGGBP1.seq
3214 - - - - - TTTTGTACCAATGACCTGTTGCAATGCTTCAATAACCGTGT Pub-3.seq
4560 ZGGBP1.seq
3214 - - - - - ACTGCCCTGAGTTGTGCCCTCTTGTGTGCTAGATTAAAGTG Pub-3.seq
4600 ZGGBP1.seq
3214 - - - - - AGACAGAGACTTGACTTGATCCTCTGAGCCTCAAGCTATT Pub-3.seq
4640 ZGGBP1.seq
3214 - - - - - GAGCTGGTAGTGGCAGAGGACTGAGGGTACCTGCCACAGTT Pub-3.seq
4680 ZGGBP1.seq
3214 - - - - - TGAATTCTTTTCCCACTGTGTAAGTCTCCATTGCAGAAATTG Pub-3.seq
4720 ZGGBP1.seq
3214 - - - - - TCGTGCGTTTGAGAAACAACCTGAGGCAGTGTGGGAGTTG Pub-3.seq
4760 ZGGBP1.seq
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FIGURE 5 continued

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3214 - - - - - A A C G A C C C T G C T G T C C T T T T A A C C T G T G T T G T C C T A G A C - - - - - Pub-3.seq
4800 - - - - - A A C G A C C C T G C T G T C C T T T T A A C C T G T G T T G T C C T A G A C - - - - - ZGGBP1.seq

3214 - - - - - C T G T C G G G C A G T C A G G G A C A C T A G A G A T T T G A T C T C A T - - - - - Pub-3.seq
4840 - - - - - C T G T C G G G C A G T C A G G G A C A C T A G A G A T T T G A T C T C A T - - - - - ZGGBP1.seq

3214 - - - - - G C G A G T C A T C A A T A G G A C A A A A A A A G T T G T G G T T T G G G G A G - - - - - Pub-3.seq
4880 - - - - - G C G A G T C A T C A A T A G G A C A A A A A A A G T T G T G G T T T G G G G A G - - - - - ZGGBP1.seq

3220 - - - - - G T C T G T T T G T T A C A T A A A A G G A C C T T T C G G T G T A A G A A A - - - - - Pub-3.seq
4920 - - - - - G T C T G T T T G T T A C A T A A A A G G A C C T T T C G G T G T A A G A A A - - - - - ZGGBP1.seq

3220 - - - - - T T G C C G T T T T A C C C T G C C C T G G C T G G C A T G T G A G A A G C C - - - - - Pub-3.seq
4960 - - - - - T T G C C G T T T T A C C C T G C C C T G G C T G G C A T G T G A G A A G C C - - - - - ZGGBP1.seq

3220 - - - - - A T G G A A G G T T G T G G T T G T A A A T G A G T T G T C T A A A G G G T G - - - - - Pub-3.seq
5000 - - - - - A T G G A A G G T T G T G G T T G T A A A T G A G T T G T C T A A A G G G T G - - - - - ZGGBP1.seq

3220 - - - - - C A G A G G C C T G A G G T T T C T A A A A G A A G G T A G A T T T C T A C A G - - - - - Pub-3.seq
5040 - - - - - C A G A G G C C T G A G G T T T C T A A A A G A A G G T A G A T T T C T A C A G - - - - - ZGGBP1.seq

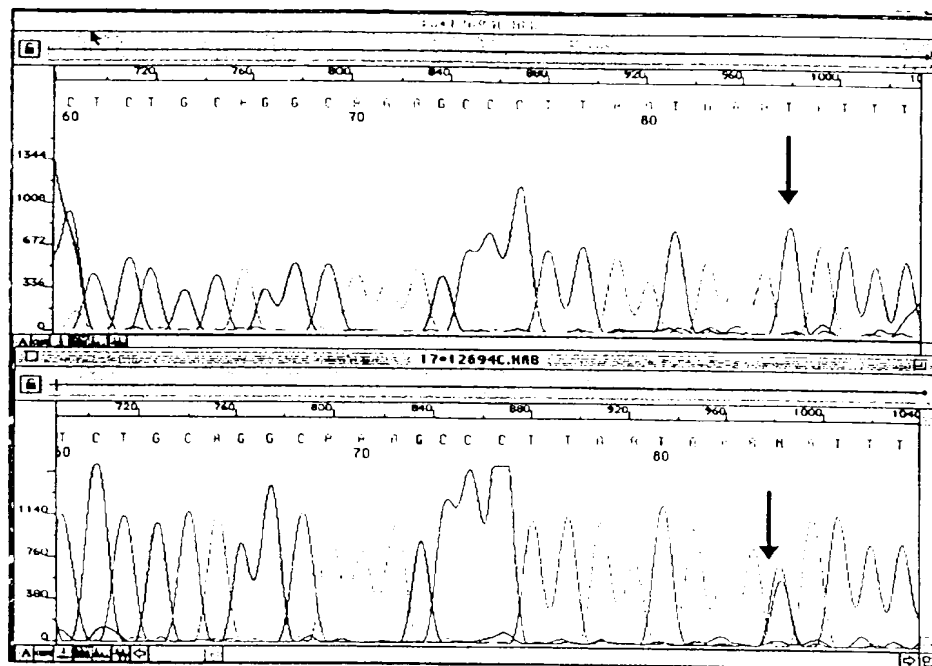
3226 - - - - - A G C T G A G T G T T G G T T C C T T T T C T T A T T G G T T G A A A T T A - - - - - Pub-3.seq
5080 - - - - - A G C T G A G T G T T G G T T C C T T T T C T T A T T G G T T G A A A T T A - - - - - ZGGBP1.seq

3226 - - - - - C C T G G T A G T G A T C A G A A A C T A G A T G C T A T G T A A C T C - - - - - Pub-3.seq
5120 - - - - - C C T G G T A G T G A T C A G A A A C T A G A T G C T A T G T A A C T C - - - - - ZGGBP1.seq

```

Decoration 'Decoration #1': Box residues that match the Consensus exactly.

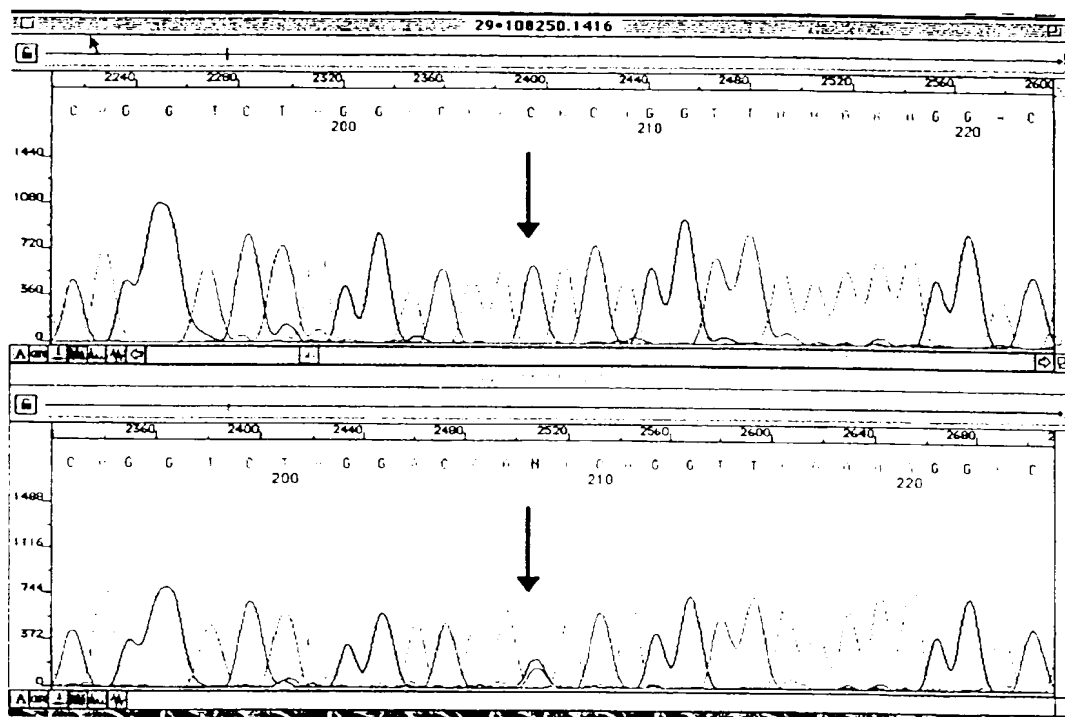
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Wild Type (human foetal brain)	T/T
Variant Type (human adult brain)	T/C
Polymorphism Position	3554
RFLP	-

FIGURE 6

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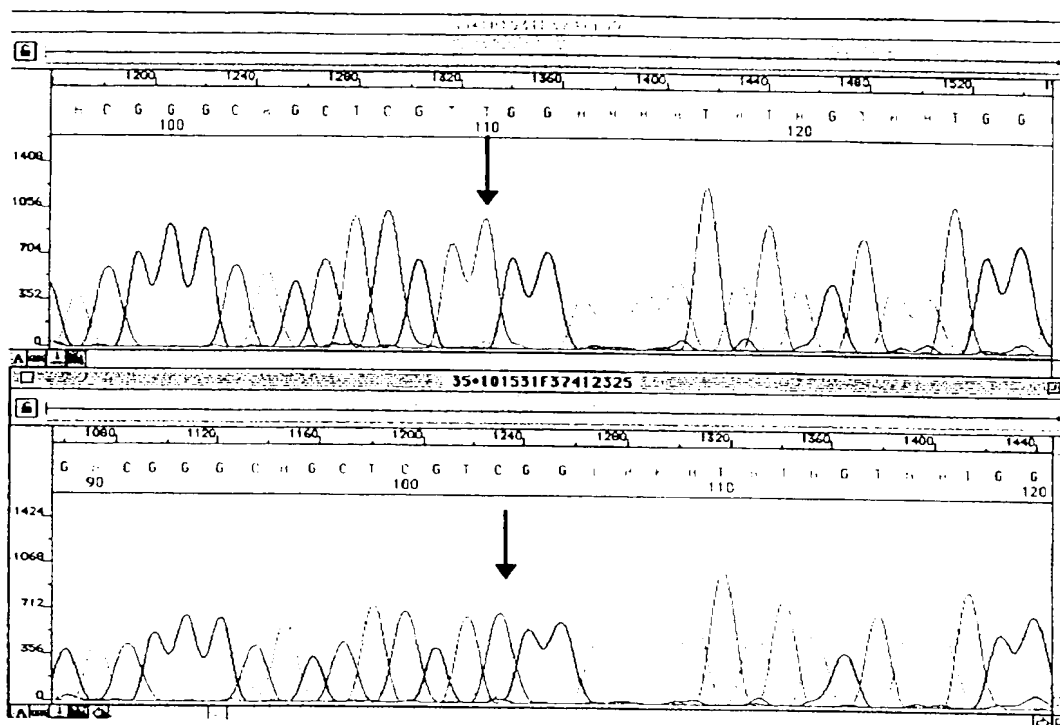


Wild Type (GM1416)	C/C
Variant (7225)	C/G
Position	4828

**FIGURE 7**



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Primer sequences derived from BAC and used on lymphoblastoid cell lines from BPAD Patients.

Homozygous wild type (KK169) - T/T

Homozygous variant (KK232) - C/C

**FIGURE 8**

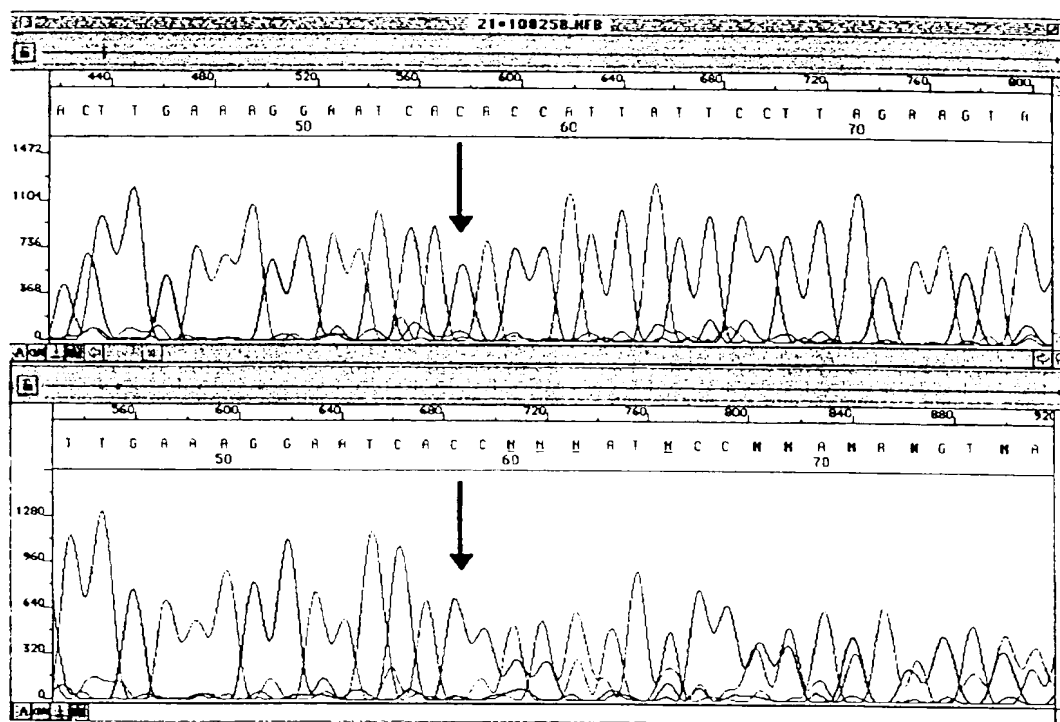
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Figure 9

TGCTGCAAGTGACAGGTTCCAAGAAGCCCGAGGGCTCAGAGCTGAATGATGAAGCGC  
AGTCCCCAAAGTGCCTGGCCACCCCTCCCTCCCTGGATCACTGCTGCCTGGGCTTGA  
TTGATTGATTGATTGATTGATTGATTGATTGATTTGAGAGAGATTCTCACTGTCACCCAG  
GCTGGAGTACAGTGGTGCGATCTCGGCTCACTGCAGCCTCTGCCTCCCGGGTTCAAG  
CAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCACGCGCCACCACAC  
CCAGCTAATTTTGTATTTTGTAGTAAAAGACGGGGTTTCACCATGTTGGGCCAGGATG  
GTCTTGATCTCCTGACCTCATGATCCACCCGCCCCGGCTTCCAAAGTGCTGGGATAC  
AGGCATGAACCCGACGCGCCAGCATGGACATTTTTTTTTTAATCCCCTGCCCTTTTC  
TTGNGGCATAATTCATTGCAGGTCTCTTCTATACAGATCATGGAAAACACATTTTCT  
TAACTGAGTTNTTATTATTTATACCCAGNCACCTCATGACANNTTTACCCTGTTACA  
NACAAAATGGGCACCTGCCAAAANCAACTTTNATATAAGGATGCTCCAGGCCT

Tetranucleotide repeat underlined

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Top electropherogram (human foetal brain) - wild type

Lower electropherogram (7225) - heterozygous variant

Arrow indicates the position of the C+C insertion - position 4032

**FIGURE 10**